USDA Forest Service HAZARD TREE EVALUATION Rocky Mountain Region

Site: _____ Page: ____ of _____

Date: _____ Inspected by: _____

(Each column represents one tree)

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unit (campsite or other) | | | | | | | | | | | | | | | | | | | | |
| Tree number | | | | | | | | | | | | | | | | | | | | |
| *if used* | Ref. point (codes on back) | | | | | | | | | | | | | | | | | | | |
| | Azimuth | | | | | | | | | | | | | | | | | | | |
| | Distance | | | | | | | | | | | | | | | | | | | |
| Tree species | | | | | | | | | | | | | | | | | | | | |
| DBH | | | | | | | | | | | | | | | | | | | | |
| Tar-get | **1** – Major trails, roads<br>**2** – People, structures, veh. | | | | | | | | | | | | | | | | | | | |
| Wounds/ cankers | **1** – 10-33% circumf.<br>**2** – 33-50% circumf.<br>**3** – >50% circumf. | | | | | | | | | | | | | | | | | | | |
| Lean | **1** – corrected (natural)<br>**3** – uncorrected (unnatural) | | | | | | | | | | | | | | | | | | | |
| Fork | **1** – strong (no incl. bark, U)<br>**2** – weak (included bark, V) | | | | | | | | | | | | | | | | | | | |
| Crack | **1** – lightning scar or small<br>**3** – severe or at fork | | | | | | | | | | | | | | | | | | | |
| Root disease | **3** – present | | | | | | | | | | | | | | | | | | | |
| Exposed roots | **1** – no decay<br>**2** – <50% roots decayed<br>**3** – >50% roots decayed | | | | | | | | | | | | | | | | | | | |
| Conk or punk knt | **3** – present | | | | | | | | | | | | | | | | | | | |
| Cavity | **2** – present | | | | | | | | | | | | | | | | | | | |
| Sound shell | **2** – 33-60% tree radius<br>**3** – <33% tree radius | | | | | | | | | | | | | | | | | | | |
| | Core/drill – sound depth | | | | | | | | | | | | | | | | | | | |
| | Decay encountered? **Y** / **N** | | | | | | | | | | | | | | | | | | | |
| Dead part | **1** – 3-6" diameter or broom<br>**2** – 6-9" diameter<br>**3** – >9" diameter | | | | | | | | | | | | | | | | | | | |
| | **D** if tree is **D**ead | | | | | | | | | | | | | | | | | | | |
| Hazard rating | | | | | | | | | | | | | | | | | | | | |
| **Notes:** | | | | | | | | | | | | | | | | | | | | |

# Use of the HAZARD TREE EVALUATION Form

Defective trees are potential hazards to people and property in developed forest areas. Indicators of defects are used to identify trees that may fail. Systematic, annual, documented inspections of trees in developed sites and corrective action are recommended to reduce hazards to the public. (D.W. Johnson. 1981. Tree hazards, recognition and reduction in recreation sites. Technical Report R2-1. USDA Forest Service, Forest Pest Management, Denver, CO.)

The HAZARD TREE EVALUATION form is more than a hazard rating record. It is a record of the overall structural condition of a tree that can be used to determine progression of defects over time and to document the frequency of certain defects. All defects observed should be checked even though only the highest values are used in the hazard rating.

Forms cannot take all situations into account. Trained and experienced evaluation crews may need to exercise judgment in some cases. However, if you need to regularly override the form, need training, or have any questions about the process or tree hazard, please contact Forest Health Management staff:
**Gunnison Service Center**: (970) 642-1133 **Lakewood Service Center**: (303) 236-9541
**Rapid City Service Center**: (605) 716-2781

1. Maps of the sites are helpful in planning and performing hazard tree surveys. All structures should be drawn on the maps. These maps used/created during the survey should be included with the HAZARD TREE EVALUATION forms to indicate which sites were surveyed.
2. Trees are easily and accurately mapped on the HAZARD TREE EVALUATION form by selecting reference points, then recording azimuths and distances to all defective trees on the form. Choose reference points that are permanent structures and unlikely to be moved. For large structures, use a more specific reference point such as the most northern/northwestern edge of the structure. Good **reference points to use are:** permanent picnic tables (codes as "T"), fire pits or grills ("F"), campsite number sign ("#"), latrines ("L"), signs ("S"), benches ("B"), water spigots ("W"), and garbage containers ("G").
3. Potential hazard of a tree is determined by Target and Defect:

| | Definition | Values |
|---|---|---|
| **Target** | Target rating is a combination of the likelihood that a potential target will be hit (assuming the tree fails) and the value of the target. | Potential targets are assigned values of 1 or 2. |
| **Defect** | A defect rating is an estimation of the likelihood that a tree will fail based on available indicators. | Defects are assigned values of 0 – 3. |

4. More than one type of defect may be identified and recorded for any tree.
5. Calculate hazard rating by multiplying target value by the value of the worst defect.

## Possible Hazard Ratings: Target x Worst Defect = Hazard Rating

**6 = Highest**, 4, 3, 2, 1, and 0 = lowest

*Revised April 2010*